



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,166	08/05/2003	Julian Crawford	035470.00001	6335
7590	12/28/2005		EXAMINER	
Henry S. Jaudon McNair Law Firm, P.A. P.O. Box 10827 Greenville, SC 29601			BRUENJES, CHRISTOPHER P	
			ART UNIT	PAPER NUMBER
			1772	

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/634,166

Applicant(s)

CRAWFORD, JULIAN

Examiner

Christopher P. Bruenjes

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 8-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 29, 2005 has been entered.

***WITHDRAWN REJECTIONS***

2. The 35 U.S.C. 112 rejection of claim 10 of record in the Office Action mailed June 29, 2005, Pages 3-4 Paragraph 3, has been withdrawn due to Applicant's amendments in the Paper filed November 21, 2005.

3. The 35 U.S.C. 102 rejections of claims 8 and 10-11 as anticipated by Plymale of record in the Office Action mailed June 29, 2005, Pages 5-6 Paragraph 4, have been withdrawn due to Applicant's amendments in the Paper filed November 21, 2005.

Art Unit: 1772

4. The 35 U.S.C. 103 rejections of claims 9 and 12-15 over Plymale of record in the Office Action mailed June 29, 2005, Pages 7-8 Paragraph 5, have been withdrawn due to Applicant's amendments in the Paper filed November 21, 2005.

#### ***Claim Objections***

5. Claims 8 and 10 are objected to because of the following informalities: Regarding claim 8, in line 11, "adjacent of" following "to" should be replaced with "the adjacent" in order to correct a grammatical error. Regarding claim 10, in line 3, "adjacent ones" following "with" should be replaced with "the adjacent" in order to correct a grammatical error. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 8-12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by O'Neil (USPN 4,228,641).

Art Unit: 1772

Regarding claim 8, O'Neil anticipate an expandable tubular fabric, since "expandable tubular fabric" must be read in its broadest reasonable interpretation. In this case, a fabric that has a tubular shape regardless of whether the tube is filled would be considered a tubular fabric. Also, expandable is not given any quantitative limitations in the claim, so any amount of expansion would render the tubular fabric expandable. In this case, the filaments are all made from thermoplastic resins and thermoplastic rubbers and therefore would have at least minimal expandability. The fabric comprises a plurality of longitudinally extending thermoplastic filaments (reference number 11, Figure 1). Note filaments having a slight twist are still considered longitudinal according to the instant specification as shown in Figure 3. The longitudinal filaments are thermoplastic resins (col.3, 1.47-51). The longitudinal filaments are drawn since they are oriented (col.2, 1.65-66). The limitation "heat set" is given its broadest reasonable interpretation to be any filament in which the filament is set in some way while heat is applied. In this case, longitudinal filaments are provided with a set twist (col.2, 1.66-68). A plurality of the longitudinal filaments, specifically the filaments forming the outside perimeter of the bundle, is arranged along an ellipsoid path in juxtaposed positions forming

Art Unit: 1772

an elongated tube (Figure 1). The fabric further comprises at least one elastic thermoplastic filament (reference number 12, Figure 1). The elastic thermoplastic filament is especially preferably a thermoplastic rubber such as ethylene-propylene rubber, which is inherently elastic since rubbers are elastic (col.3, 1.59-68). Furthermore, since the longitudinal filaments are thermoplastic resins and the elastic thermoplastic filament is a thermoplastic rubber, the elongation capabilities of the elastic thermoplastic filament are inherently greater than the elongation capabilities since rubber is more elastic than resin. The elastic thermoplastic filament is helically wrapped about and bonded to the longitudinal filaments (col.4, 1.5-11). The longitudinal filaments are maintained in a fixed position relative to the adjacent longitudinal filament and maintain their relative positions during use (col.3, 1.1-46).

Regarding claim 9, the elastic thermoplastic filaments are of a size being at least twice the size of the longitudinal filaments at least with regard to the width size of the individual filaments (Figure 1 and col.4, 1.32-37).

Regarding claim 10, the longitudinal filaments are substantially engaged with the adjacent longitudinal filaments along its length (Figure 1).

Art Unit: 1772

Regarding claim 11, the helical wraps formed by said elastic thermoplastic filament are longitudinally spaced along the length of said longitudinal filaments (Figure 1 and col.3, 1.18-20).

Regarding claim 12 and 14, the helically wrapped filament has a profiled cross-section and the longitudinal filaments have a circular cross section (Figure 1).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

Art Unit: 1772

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neil (USPN 4,228,641).

O'Neil teach all that is claimed in claim 8 as shown above, and teaches that the helically wrapped elastic filament is formed from any desired cross-section and that the longitudinal filaments are formed from any desired cross-section (col.5, 1.58-63). O'Neil further teach that it is filaments are formed having circular cross-sections such as the pictured longitudinal filaments and profiled cross-sections such as the oval cross section preferred for the helical filament (Figure 1 and col.5, 1.58-63). One of ordinary skill in the art would have recognized that the shape of the cross section of the helical and longitudinal filaments would be chosen depending on the intended end result of the article and that circular and profiled cross-sections are well known and commonly used shapes in the art, as taught by O'Neil.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to select a circular cross-section for the helical filament and a profiled cross-section for the longitudinal cross section,



Art Unit: 1772

depending on the intended end result and desired appearance of the fabric, as taught by O'Neil.

***ANSWERS TO APPLICANT'S ARGUMENTS***

11. Applicant's arguments regarding the 35 U.S.C. 112 rejection of record have been considered but are moot since the rejection has been withdrawn.

12. Applicant's arguments regarding the 35 U.S.C. 102 and 103 rejections of claims 8-15 as anticipated and/or obvious over Plymale have been fully considered but they are moot since the rejections have been withdrawn.

***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kanno et al (US 2004/0068972 A1); Mitsumoto et al (USPN 5,572,860); Golz (USPN 5,564,476); Ford et al (USPN 5,613,522); Medvedev et al (USPN 6,013,341).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Bruenjes whose telephone number is 571-272-1489.

Art Unit: 1772

The examiner can normally be reached on Monday thru Friday from 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher P Bruenjes


Examiner

Art Unit 1772

CPB

CPB

December 21, 2005

  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772

12/22/05